Peter J A Kleinman

List of Publications by Year
in descending order

137 papers	7,158 citations	66343 42 h-index	62596 80 g-index
139 all docs	139 docs citations	139 times ranked	4823 citing authors

#	Article	IF	Citations
1	Phosphorus Legacy: Overcoming the Effects of Past Management Practices to Mitigate Future Water Quality Impairment. Journal of Environmental Quality, 2013, 42, 1308-1326.	2.0	706
2	Phosphorus Transport in Agricultural Subsurface Drainage: A Review. Journal of Environmental Quality, 2015, 44, 467-485.	2.0	358
3	Phosphorus loss from land to water: integrating agricultural and environmental management. Plant and Soil, 2001, 237, 287-307.	3.7	327
4	Effect of Mineral and Manure Phosphorus Sources on Runoff Phosphorus. Journal of Environmental Quality, 2002, 31, 2026-2033.	2.0	263
5	Water Quality Remediation Faces Unprecedented Challenges from â€œLegacy Phosphorusâ€. Environmental Science & Technology, 2013, 47, 8997-8998.	10.0	228
6	Managing agricultural phosphorus for water quality protection: principles for progress. Plant and Soil, 2011, 349, 169-182.	3.7	226
7	Amounts, Forms, and Solubility of Phosphorus in Soils Receiving Manure. Soil Science Society of America Journal, 2004, 68, 2048-2057.	2.2	223
8	Effect of Broadcast Manure on Runoff Phosphorus Concentrations over Successive Rainfall Events. Journal of Environmental Quality, 2003, 32, 1072-1081.	2.0	174
9	Measuring Waterâ€Extractable Phosphorus in Manure as an Indicator of Phosphorus in Runoff. Soil Science Society of America Journal, 2002, 66, 2009-2015.	2.2	165
10	Implementing agricultural phosphorus science and management to combat eutrophication. Ambio, 2015, 44, 297-310.	5.5	164
11	Role of Rainfall Intensity and Hydrology in Nutrient Transport via Surface Runoff. Journal of Environmental Quality, 2006, 35, 1248-1259.	2.0	160
12	Effect of Rainfall Simulator and Plot Scale on Overland Flow and Phosphorus Transport. Journal of Environmental Quality, 2003, 32, 2172-2179.	2.0	159
13	Freeze-Thaw Effects on Phosphorus Loss in Runoff from Manured and Catch-Cropped Soils. Journal of Environmental Quality, 2005, 34, 2301-2309.	2.0	159
14	Soil controls of phosphorus in runoff: Management barriers and opportunities. Canadian Journal of Soil Science, 2011, 91, 329-338.	1.2	154
15	Assessing Site Vulnerability to Phosphorus Loss in an Agricultural Watershed. Journal of Environmental Quality, 2001, 30, 2026-2036.	2.0	148
16	The Pivotal Role of Phosphorus in a Resilient Water-Energy-Food Security Nexus. Journal of Environmental Quality, 2015, 44, 1049-1062.	2.0	125
17	Survey of Water-Extractable Phosphorus in Livestock Manures. Soil Science Society of America Journal, 2005, 69, 701-708.	2.2	122
18	Application of manure to no-till soils: phosphorus losses by sub-surface and surface pathways. Nutrient Cycling in Agroecosystems, 2009, 84, 215-227.	2.2	121

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19	Evaluating the Success of Phosphorus Management from Field to Watershed. Journal of Environmental Quality, 2009, 38, 1981-1988.	2.0	119
20	Estimating soil phosphorus sorption saturation from Mehlich-3 data. Communications in Soil Science and Plant Analysis, 2002, 33, 1825-1839.	1.4	110
21	Evaluation of Phosphorus Transport in Surface Runoff from Packed Soil Boxes. Journal of Environmental Quality, 2004, 33, 1413.	2.0	90
22	Selection of a Waterâ€Extractable Phosphorus Test for Manures and Biosolids as an Indicator of Runoff Loss Potential. Journal of Environmental Quality, 2007, 36, 1357-1367.	2.0	90
23	Critical source area management of agricultural phosphorus: experiences, challenges and opportunities. Water Science and Technology, 2011, 64, 945-952.	2.5	87
24	Manure Application Technology in Reduced Tillage and Forage Systems: A Review. Journal of Environmental Quality, 2011, 40, 292-301.	2.0	86
25	Phosphorus Fate, Management, and Modeling in Artificially Drained Systems. Journal of Environmental Quality, 2015, 44, 460-466.	2.0	85
26	Effects of Hydrology and Field Management on Phosphorus Transport in Surface Runoff. Journal of Environmental Quality, 2009, 38, 2273-2284.	2.0	84
27	Manuresheds: Advancing nutrient recycling in US agriculture. Agricultural Systems, 2020, 182, 102813.	6.1	75
28	Surface Runoff along Two Agricultural Hillslopes with Contrasting Soils. Soil Science Society of America Journal, 2004, 68, 914-923.	2.2	74
29	USING SOIL PHOSPHORUS BEHAVIOR TO IDENTIFY ENVIRONMENTAL THRESHOLDS. Soil Science, 2000, 165, 943-950.	0.9	73
30	Using Flue Gas Desulfurization Gypsum to Remove Dissolved Phosphorus from Agricultural Drainage Waters. Journal of Environmental Quality, 2012, 41, 664-671.	2.0	65
31	Factors influencing surface runoff generation from two agricultural hillslopes in central Pennsylvania. Hydrological Processes, 2009, 23, 1295-1312.	2.6	64
32	ASSESSING THE EFFICACY OF ALTERNATIVE PHOSPHORUS SORBING SOIL AMENDMENTS. Soil Science, 2002, 167, 539-547.	0.9	62
33	Impacts of Cover Crops and Crop Residues on Phosphorus Losses in Cold Climates: A Review. Journal of Environmental Quality, 2019, 48, 850-868.	2.0	62
34	Low-Disturbance Manure Incorporation Effects on Ammonia and Nitrate Loss. Journal of Environmental Quality, 2012, 41, 928-937.	2.0	60
35	Using Soil Phosphorus Profile Data to Assess Phosphorus Leaching Potential in Manured Soils. Soil Science Society of America Journal, 2003, 67, 215-224.	2.2	59
36	The Persistent Environmental Relevance of Soil Phosphorus Sorption Saturation. Current Pollution Reports, 2017, 3, 141-150.	6.6	57

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37	Impact of climate change and climate anomalies on hydrologic and biogeochemical processes in an agricultural catchment of the Chesapeake Bay watershed, USA. Science of the Total Environment, 2018, 637-638, 1443-1454.	8.0	57
38	INNOVATIVE MANAGEMENT OF AGRICULTURAL PHOSPHORUS TO PROTECT SOIL AND WATER RESOURCES. Communications in Soil Science and Plant Analysis, 2001, 32, 1071-1100.	1.4	54
39	Predicting phosphorus dynamics in complex terrains using a variable source area hydrology model. Hydrological Processes, 2015, 29, 588-601.	2.6	54
40	Interlaboratory comparison of soil phosphorus extracted by various soil test methods. Communications in Soil Science and Plant Analysis, 2001, 32, 2325-2345.	1.4	52
41	Celebrating the 350th Anniversary of Phosphorus Discovery: A Conundrum of Deficiency and Excess. Journal of Environmental Quality, 2018, 47, 774-777.	2.0	48
42	Phosphorus and the Chesapeake Bay: Lingering Issues and Emerging Concerns for Agriculture. Journal of Environmental Quality, 2019, 48, 1191-1203.	2.0	48
43	PHOSPHORUS LEACHING THROUGH INTACT SOIL COLUMNS BEFORE AND AFTER POULTRY MANURE APPLICATION. Soil Science, 2005, 170, 153-166.	0.9	45
44	A review of regulations and guidelines related to winter manure application. Ambio, 2018, 47, 657-670.	5.5	45
45	Phosphorus Leaching from Agricultural Soils of the Delmarva Peninsula, USA. Journal of Environmental Quality, 2015, 44, 524-534.	2.0	44
46	U.S. Department of Agriculture Agricultural Research Service Mahantango Creek Watershed, Pennsylvania, United States: Physiography and history. Water Resources Research, 2011, 47, .	4.2	42
47	Improved Simulation of Edaphic and Manure Phosphorus Loss in SWAT. Journal of Environmental Quality, 2016, 45, 1215-1225.	2.0	42
48	Development of a Water-Extractable Phosphorus Test for Manure. Soil Science Society of America Journal, 2005, 69, 695-700.	2.2	41
49	Evaluation of Phosphorus Site Assessment Tools: Lessons from the USA. Journal of Environmental Quality, 2017, 46, 1250-1256.	2.0	39
50	One size does not fit all: Toward regional conservation practice guidance to reduce phosphorus loss risk in the Lake Erie watershed. Journal of Environmental Quality, 2021, 50, 529-546.	2.0	38
51	Integrating Contributing Areas and Indexing Phosphorus Loss from Agricultural Watersheds. Journal of Environmental Quality, 2008, 37, 1488-1496.	2.0	35
52	Consistency of the Threshold Phosphorus Saturation Ratio across a Wide Geographic Range of Acid Soils. , 2018, 1, 1-8.		35
53	Phosphorus leaching through intact soil cores as influenced by type and duration of manure application. Nutrient Cycling in Agroecosystems, 2007, 77, 269-281.	2.2	34
54	Sources of Uncertainty Affecting Soil Organic Carbon Estimates in Northern New York. Soil Science Society of America Journal, 2003, 67, 1206-1212.	2.2	32

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55	Distant Views and Local Realities: The Limits of Global Assessments to Restore the Fragmented Phosphorus Cycle. Agricultural and Environmental Letters, 2016, 1, 160024.	1.2	32
56	Environmental assessment of United States dairy farms. Journal of Cleaner Production, 2021, 315, 128153.	9.3	32
57	Runoff Losses of Sediment and Phosphorus from Noâ€Till and Cultivated Soils Receiving Dairy Manure. Journal of Environmental Quality, 2010, 39, 1762-1770.	2.0	31
58	Seasonal Manure Application Timing and Storage Effects on Fieldâ€•and Watershedâ€Level Phosphorus Losses. Journal of Environmental Quality, 2017, 46, 1403-1412.	2.0	31
59	Assessment of best management practices to minimise the runoff of manureâ€borne phosphorus in the United States. New Zealand Journal of Agricultural Research, 2004, 47, 461-477.	1.6	30
60	Occurrence of Arsenic and Phosphorus in Ditch Flow from Litterâ€amended Soils and Barn Areas. Journal of Environmental Quality, 2010, 39, 2080-2088.	2.0	28
61	Characterizing the phosphorus forms extracted from soil by the Mehlich III soil test. Geochemical Transactions, 2018, 19, 7.	0.7	28
62	Influence of soil phosphorus and manure on phosphorus leaching in Swedish topsoils. Nutrient Cycling in Agroecosystems, 2013, 96, 133-147.	2.2	27
63	Novel Manure Management Technologies in Noâ€Till and Forage Systems: Introduction to the Special Series. Journal of Environmental Quality, 2011, 40, 287-291.	2.0	24
64	Short communication: Identifying challenges and opportunities for improved nutrient management through the USDA's Dairy Agroecosystem Working Group. Journal of Dairy Science, 2018, 101, 6632-6641.	3.4	24
65	Comparative analysis of water budgets across the U.S. long-term agroecosystem research network. Journal of Hydrology, 2020, 588, 125021.	5.4	24
66	Phosphorus runoff from a phosphorus deficient soil under common bean (Phaseolus vulgaris L.) and soybean (Glycine max L.) genotypes with contrasting root architecture. Plant and Soil, 2009, 317, 1-16.	3.7	23
67	Spatial Variation of Soil Phosphorus within a Drainage Ditch Network. Journal of Environmental Quality, 2007, 36, 1096-1104.	2.0	21
68	Effect of dairy manure slurry application in a no-till system on phosphorus runoff. Nutrient Cycling in Agroecosystems, 2011, 90, 201-212.	2.2	21
69	Reducing Phosphorus Runoff and Leaching from Poultry Litter with Alum: Twentyâ€Year Small Plot and Pairedâ€Watershed Studies. Journal of Environmental Quality, 2016, 45, 1413-1420.	2.0	21
70	Waterâ€Extractable Phosphorus in Animal Manure and Manure Compost: Quantities, Characteristics, and Temporal Changes. Journal of Environmental Quality, 2018, 47, 471-479.	2.0	21
71	Regional environmental assessment of dairy farms. Journal of Dairy Science, 2020, 103, 3275-3288.	3.4	21
72	Using Rare Earth Elements to Control Phosphorus and Track Manure in Runoff. Journal of Environmental Quality, 2010, 39, 1028-1035.	2.0	20

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73	Improving the spatial representation of soil properties and hydrology using topographically derived initialization processes in the SWAT model. Hydrological Processes, 2016, 30, 4633-4643.	2.6	20
74	Shortâ€term Forecasting Tools for Agricultural Nutrient Management. Journal of Environmental Quality, 2017, 46, 1257-1269.	2.0	20
75	Management characteristics of Pennsylvania dairy farms. Applied Animal Science, 2019, 35, 325-338.	1.2	20
76	Surface Runoff along Two Agricultural Hillslopes with Contrasting Soils. Soil Science Society of America Journal, 2004, 68, 914.	2.2	20
77	Impact of Dredging on Phosphorus Transport in Agricultural Drainage Ditches of the Atlantic Coastal Plain¹. Journal of the American Water Resources Association, 2008, 44, 1500-1511.	2.4	18
78	Managing Agricultural Phosphorus for Environmental Protection. Agronomy, 2015, , 1021-1068.	0.2	18
79	Using Soil Phosphorus Profile Data to Assess Phosphorus Leaching Potential in Manured Soils. Soil Science Society of America Journal, 2003, 67, 215.	2.2	18
80	Addressing the spatial disconnect between nationalâ€scale total maximum daily loads and localized land management decisions. Journal of Environmental Quality, 2020, 49, 613-627.	2.0	16
81	Phosphorus Runoff Losses from Subsurfaceâ€Applied Poultry Litter on Coastal Plain Soils. Journal of Environmental Quality, 2011, 40, 412-420.	2.0	16
82	Phosphorus and Nitrogen Leaching Before and After Tillage and Urea Application. Journal of Environmental Quality, 2015, 44, 560-571.	2.0	15
83	Estrogen Transport in Surface Runoff from Agricultural Fields Treated with Two Application Methods of Dairy Manure. Journal of Environmental Quality, 2016, 45, 2007-2015.	2.0	15
84	Subsurface Application Enhances Benefits of Manure Redistribution. Agricultural and Environmental Letters, 2016, 1, 150003.	1.2	15
85	Temperature and Nitrogen Effects on Phosphorus Uptake by Agricultural Streamâ€Bed Sediments. Journal of Environmental Quality, 2017, 46, 295-301.	2.0	15
86	Poultry manureshed management: Opportunities and challenges for a vertically integrated industry. Journal of Environmental Quality, 2022, 51, 540-551.	2.0	15
87	Managing crop nutrients to achieve water quality goals. Journal of Soils and Water Conservation, 2019, 74, 91A-101A.	1.6	14
88	<i>Phosphorus mirabilis</i>: Illuminating the Past and Future of Phosphorus Stewardship. Journal of Environmental Quality, 2019, 48, 1127-1132.	2.0	13
89	FRST: A national soil testing database to improve fertility recommendations. Agricultural and Environmental Letters, 2020, 5, e20008.	1.2	13
90	Minimum dataset and metadata guidelines for soilâ€test correlation and calibration research. Soil Science Society of America Journal, 2022, 86, 19-33.	2.2	13

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91	Vertical Distribution of Phosphorus in Agricultural Drainage Ditch Soils. Journal of Environmental Quality, 2007, 36, 1895-1903.	2.0	12
92	A Protocol for Conducting Rainfall Simulation to Study Soil Runoff. Journal of Visualized Experiments, 2014, , .	0.3	12
93	U.S. Department of Agriculture Agricultural Research Service Mahantango Creek Watershed, Pennsylvania, United States: Longâ€term water quality database. Water Resources Research, 2011, 47, .	4.2	11
94	Varying Influence of Dairy Manure Injection on Phosphorus Loss in Runoff over Four Years. Journal of Environmental Quality, 2019, 48, 450-458.	2.0	11
95	An environmental assessment of grass-based dairy production in the northeastern United States. Agricultural Systems, 2020, 184, 102887.	6.1	11
96	The USDAâ€ARS Experimental Watershed Network: Evolution, Lessons Learned, Societal Benefits, and Moving Forward. Water Resources Research, 2021, 57, e2019WR026473.	4.2	11
97	Urea Release by Intermittently Saturated Sediments from a Coastal Agricultural Landscape. Journal of Environmental Quality, 2017, 46, 302-310.	2.0	10
98	Load-discharge relationships reveal the efficacy of manure application practices on phosphorus and total solids losses from agricultural fields. Agriculture, Ecosystems and Environment, 2019, 272, 19-28.	5.3	10
99	U.S. Department of Agriculture Agricultural Research Service Mahantango Creek Watershed, Pennsylvania, United States: Longâ€term stream discharge database. Water Resources Research, 2011, 47, .	4.2	9
100	Envisioning the manureshed: Toward comprehensive integration of modern crop and animal production. Journal of Environmental Quality, 2022, 51, 481-493.	2.0	8
101	U.S. Department of Agriculture Agricultural Research Service Mahantango Creek Watershed, Pennsylvania, United States: Longâ€term precipitation database. Water Resources Research, 2011, 47, .	4.2	7
102	Declining Atmospheric Sulfate Deposition in an Agricultural Watershed in Central Pennsylvania, USA. Agricultural and Environmental Letters, 2016, 1, 160039.	1.2	7
103	Impact of Irrigation, Nitrogen Fertilization, and Spatial Management on Maize. Agronomy Journal, 2016, 108, 1794-1804.	1.8	7
104	Versatility of the MAnure PHosphorus EXtraction (MAPHEX) System in Removing Phosphorus, Odor, Microbes, and Alkalinity from Dairy Manures: A Four-Farm Case Study. Applied Engineering in Agriculture, 2018, 34, 567-572.	0.7	7
105	Chemical and Isotopic Tracers Illustrate Pathways of Nitrogen Loss in Cranberry Floodwaters. Journal of Environmental Quality, 2015, 44, 1326-1332.	2.0	6
106	Elements of Precision Manure Management. Agronomy, 0, , 165-192.	0.2	6
107	Land use change and collaborative manureshed management in New Mexico. Journal of Environmental Quality, 2021, , .	2.0	6
108	Managing Animal Manure to Minimize Phosphorus Losses from Land to Water. ASA Special Publication, 0, , 201-228.	0.8	6

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109	Opportunities to implement manureshed management in the Iowa, North Carolina, and Pennsylvania swine industry. Journal of Environmental Quality, 2022, 51, 510-520.	2.0	6
110	Challenges and opportunities for manureshed management across U.S. dairy systems: Case studies from four regions. Journal of Environmental Quality, 2022, 51, 521-539.	2.0	6
111	Recycling nutrients in the beef supply chain through circular manuresheds: Data to assess tradeoffs. Journal of Environmental Quality, 2022, 51, 494-509.	2.0	6
112	Reducing Unintended Consequences of Agricultural Phosphorus. , 2019, 103, 33-35.		5
113	The Partnerships for Data Innovations (PDI): Facilitating data stewardship and catalyzing research engagement in the digital age. Agricultural and Environmental Letters, 2021, 6, e20055.	1.2	5
114	Development of a soil test correlation and calibration database for the USA. Agricultural and Environmental Letters, 2021, 6, .	1.2	5
115	The social networks of manureshed management. Journal of Environmental Quality, 2022, 51, 566-579.	2.0	5
116	Effect of Coal Combustion By-products on Phosphorus Runoff from a Coastal Plain Soil. Communications in Soil Science and Plant Analysis, 2011, 42, 778-789.	1.4	4
117	Phosphorus and nitrogen losses from poultry litter stacks and leaching through soils. Nutrient Cycling in Agroecosystems, 2015, 103, 101-114.	2.2	4
118	Urea Fluctuations in Stream Baseflow across Land Cover Gradients and Seasons in a Coastal Plain River System. Journal of the American Water Resources Association, 2019, 55, 228-246.	2.4	4
119	Evaluating the Influence of Storage Time, Sampleâ€handling Method, and Filter Paper on the Measurement of Waterâ€Extractable Phosphorus in Animal Manures. Communications in Soil Science and Plant Analysis, 2006, 37, 451-463.	1.4	3
120	Managing Surface Water Inputs to Reduce Phosphorus Loss from Cranberry Farms. Journal of Environmental Quality, 2017, 46, 1472-1479.	2.0	3
121	Pilot-Scale Investigation of Phosphorus Removal from Swine Manure by the MAnure PHosphorus EXtraction (MAPHEX) System. Applied Engineering in Agriculture, 2020, 36, 525-531.	0.7	3
122	Nitrogen dynamics after low-emission applications of dairy slurry or fertilizer on perennial grass: a long term field study employing natural abundance of Î´15N. Plant and Soil, 2021, 465, 415-430.	3.7	3
123	Response to â€œComments on â€˜Amounts, Forms, and Solubility of Phosphorus in Soils Receiving Manureâ€™â€• Soil Science Society of America Journal, 2005, 69, 1355-1355.	2.2	2
124	Environmental and Economic Comparisons of Manure Application Methods on Dairy Farms. , 2007, , .		2
125	The Agricultural Conservation Planning Framework: Opportunities and challenges in the eastern United States. Agricultural and Environmental Letters, 2021, 6, e20054.	1.2	2
126	Estimating dissolved phosphorus losses from legacy sources in pastures: The limits of soil tests and smallâ€scale rainfall simulators. Journal of Environmental Quality, 2021, 50, 1042-1062.	2.0	2

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127	Applying the NWSâ€™s Distributed Hydrologic Model to Short-Range Forecasting of Quickflow in the Mahantango Creek Watershed. Journal of Hydrometeorology, 2022, 23, 1257-1280.	1.9	2
128	A Phosphorus Transport Study: Influence of Poultry Litter Application Method on Leaching. , 2010, , .		1
129	Suburface application enhances benefits of manure redistribution. Crops & Soils, 2016, 49, 48-51.	0.2	1
130	A Protocol for Collecting and Constructing Soil Core Lysimeters. Journal of Visualized Experiments, 2016, , .	0.3	1
131	Hydrology and Soil Manipulations of Ironâ€Rich Ditch Mesocosms Provide Little Evidence of Phosphorus Capture within the Profile. Journal of Environmental Quality, 2017, 46, 596-604.	2.0	1
132	Culturable antibiotic resistant fecal coliform bacteria in soil and surface runoff following liquid dairy manure surface application and subsurface injection. Journal of Environmental Quality, 2022, , .	2.0	1
133	Long term agroecosystem research experimental watershed network. Hydrological Processes, 2022, 36, .	2.6	1
134	Field Olfactometry Assessment of Dairy Manure Land Application Methods. , 2008, , .		0
135	Subsurface Manure Application to Reduce Ammonia Emissions. , 2010, , .		0
136	Elements of Precision Manure Management. Agronomy, 2017, , .	0.2	0
137	Transforming the Culture of Data Management in a Federal Science Agency, One Client at a Time. CSA News, 2021, 66, 44-47.	0.0	0